



ECUS INTERNATIONAL CO., LTD

SMD Power Inductor Shielded

Part Number: E11280SPS1007R

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ECUS P#: E11280SPS1007R



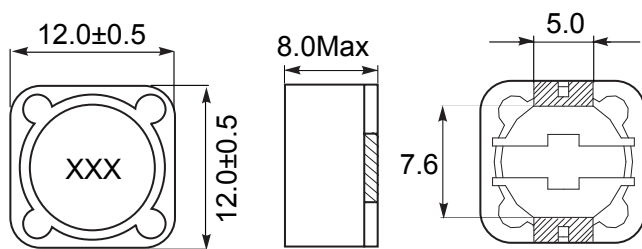
Features

- Magnetically shielded version which results in a low leakage field
- High storage capacity
- Low self-losses
- RoHS compliant
- Ambient temperature -40°C to $+85^{\circ}\text{C}$ with (40°C rise) Irms current.
Maximum part temperature $+125^{\circ}\text{C}$ (ambient + temp rise). Derating.
- Storage temperature Component: -40°C to $+125^{\circ}\text{C}$.
Tape and reel packaging: -40°C to $+80^{\circ}\text{C}$

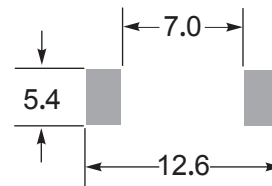
Applications

- Switching regulators with low operating voltage
- Integrated DC/DC-converter
- Perfectly suitable for switching regulators with extremely high efficiency

Mechanical Dimensions (in mm)



Recommended Land Pattern (in mm)



Electrical Characteristics

Properties	Test Conditions		Value	Unit	Tol.
Inductance	100 kHz/1V	L	10	uH	$\pm 20\%$
DC Resistance	@ 25 °C	RDC	0.016	Ω	Typ.
DC Resistance	@ 25 °C	RDC	0.019	Ω	Max.
Rated Current	$\Delta T = 40^{\circ}\text{C}$	Irms	6.2	A	Max.
Saturation Current	$ \Delta L/L < 25\%$	Isat	7.0	A	Max.

Test Equipments

Agilent4284A + Agilent4285A for L

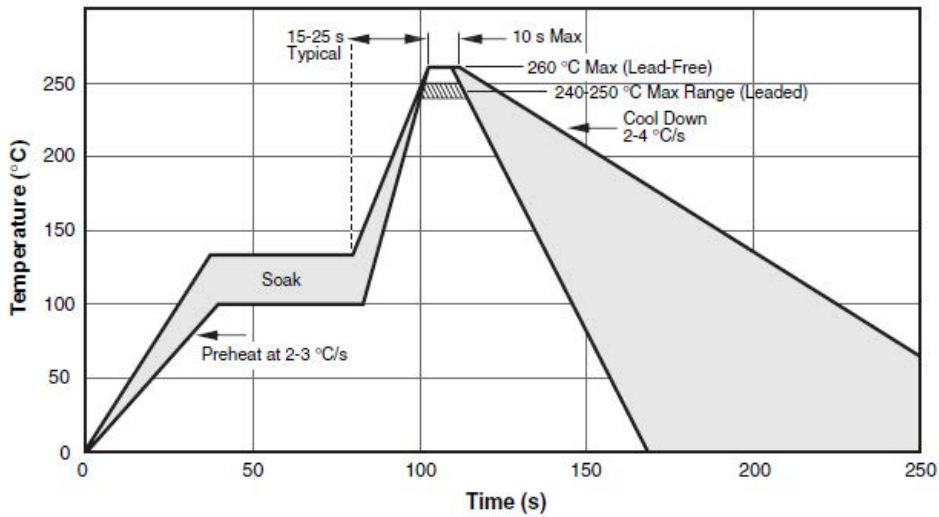
CH502BC for RDC

VR126G/7220 + WK3260B + WK3265B for Idc

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Reflow Profile



Delivery mode and packing unit

- Tape and Reel
- Packing unit: 500 pcs

Marking

- Inductance value on components
- Minimum data on SPQ package:
ECUS P/N, quantity, date code

Note

Electrical Specifications @ 25 °C (Values specified at 25 °C)

Terminal Material: Sn99.3/Cu0.7

RoHS Directive 2002/95/EC Jan 27, 2003 including Annex.

Customers should verify actual device performance in their specific applications

Cautions and Warnings

- Please note the recommendations in our Inductors data book (latest edition) and in the data sheets.
 - Particular attention should be paid to the derating curves given there.
 - The soldering conditions should also be observed. Temperatures quoted in relation to wave soldering refer to the pin, not the housing.

- If the components are to be washed varnished it is necessary to check whether the washing varnish agent that is used has a negative effect on the wire insulation, any plastics that are used, or on glued joints. In particular, it is possible for washing varnish agent residues to have a negative effect in the long-term on wire insulation.

- The following points must be observed if the components are potted in customer applications:
 - Many potting materials shrink as they harden. They therefore exert a pressure on the plastic housing or core. This pressure can have a deleterious effect on electrical properties, and in extreme cases can damage the core or plastic housing mechanically.
 - It is necessary to check whether the potting material used attacks or destroys the wire insulation, plastics or glue.
 - The effect of the potting material can change the high-frequency behaviour of the components.

- Ferrites are sensitive to direct impact. This can cause the core material to flake, or lead to breakage of the core.

- Even for customer-specific products, conclusive validation of the component in the circuit can only be carried out by the customer.

- Specifications are subject to change without notice.

- Customers should verify actual device performance in their specific applications

Important Notes

The following applies to all products named in this publication:

1. Some parts of this publication contain statements about the suitability of our products for certain areas of application. These statements are based on our knowledge of typical requirements that are often placed on our products in the areas of application concerned. We nevertheless expressly point out that such statements cannot be regarded as binding statements about the suitability of our products for a particular customer application.
As a rule, ECUS is either unfamiliar with individual customer applications or less familiar with them than the customers themselves. For these reasons, it is always ultimately incumbent on the customer to check and decide whether an ECUS product with the properties described in the product specification is suitable for use in a particular customer application.
2. We also point out that in individual cases, a malfunction of electronic components or failure before the end of their usual service life cannot be completely ruled out in the current state of the art, even if they are operated as specified. In customer applications requiring a very high level of operational safety and especially in customer applications in which the malfunction or failure of an electronic component could endanger human life or health (e.g. in accident prevention or life-saving systems), it must therefore be ensured by means of suitable design of the customer application or other action taken by the customer (e.g. installation of protective circuitry or redundancy) that no injury or damage is sustained by third parties in the event of malfunction or failure of an electronic component.
3. The warnings, cautions and product-specific notes must be observed.
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8. RoHS Directive 2002/95/EC Jan 27, 2003 including Annex.